

## TITLE

Pekin Lilac Tree Named 'SunDak'

## GENUS AND SPECIES

[0001] *Syringa pekinensis*

## CULTIVAR DENOMINATION

[0002] 'SunDak'

## BACKGROUND OF THE INVENTION

[0003] The present invention comprises a new and distinct cultivar of Pekin lilac tree, botanically known as *Syringa pekinensis*, and hereinafter referred to by the cultivar name 'SunDak'. 'SunDak' is a product of a planned tree selection program which had the objective of creating a new cultivar of Pekin lilac tree having striking coppery-bronze exfoliating bark pattern, improved winter hardiness and various aesthetic qualities as listed in the Detailed Description of the Plant.

[0004] In 1980, bulk seed was collected from a hardy parental tree growing on the North Dakota State University (NDSU) campus. Several seedling plants from the above seed collection were planted on the NDSU campus on May 16, 1983. The new cultivar is a seedling selection from this seedling population. The selection possessed the qualities as outlined above and listed below in the DETAILED DESCRIPTION OF THE NEW PLANT.

[0005] The first act of asexual reproduction of 'SunDak' was accomplished by grafting onto *Syringa pekinensis* rootstocks by applicant from the initial selection on February 8, 1996 in a controlled environment at NDSU, Fargo, North Dakota. Horticultural examination of selected units initiated on June 29, 1999 has demonstrated that the combination of characteristics as herein disclosed for 'SunDak' are firmly fixed and are retained through successive generations of asexual reproduction.

[0006] 'SunDak' has not been observed under all possible environmental conditions. The phenotype may vary with variations in environment such as temperature, light intensity, and day length. The following observations, measurements and comparisons describe the plant



grown on the NDSU campus or plants grown under greenhouse/field conditions, which approximate those generally used in commercial practices.

### DESCRIPTION OF DRAWINGS

**[0007]** This new lilac tree is illustrated by the accompanying photographs which show the entire tree, close-up of the flower panicles, trunk, close-up of the trunk showing exfoliating bark patterns and a close-up of the seed clusters (capsules). The colors shown are as true as can be reasonably obtained by conventional photographic procedures.

FIG 1 shows the complete tree in dense foliage;

FIG 2 is a close-up of the dense foliage with flower panicles;

FIG 3 shows the trunk;

FIG 4 is a close-up of the trunk showing exfoliating bark patterns; and

FIG 5 is a close-up of the seed clusters (capsules).

### DETAILED DESCRIPTION OF THE NEW PLANT

**[0008]** The following traits and characteristics describe the new cultivar. Color references are to the RHS Colour Chart of The Royal Horticultural Society of London (RHS).

**[0009]** Classification:

Origin - - This species is native to China. Seedlings were grown from seed collected from a hardy tree growing for over 50 years on the NDSU campus. The origin or source of the original tree is unknown. 'SunDak' was selected from several seedlings of this population planted on the NDSU campus in 1983.

Parentage - - Seed parent: *Syringa pekinensis* – Pekin Lilac

Pollen parent: *Syringa pekinensis* – Pekin Lilac

Species - - *Syringa pekinensis*

Common names - - Pekin Lilac

Commercial name - - Copper Curls™ Pekin Lilac

**[0010]** Trunk

Multiple stem - - Two main trunks forming clump

Size -- At 21 years old, average diameter of two trunks, 19.1 cm

Bark - - Coppery-orange (ranges from RHS 164A to 165B), average length of exfoliating sheets 3.6 cm

Height - - At 21 years old = 8.1m; width = 6.2m

Growth Habit or Form - - Upright, broadly oval to rounded

Growth rate - - 35 cm per year under sod conditions

**[0011] Trunk lenticels:**

Length - - Average = 8 mm on a trunk of 9 cm diameter

Shape - - Torpedo-like

Texture - - Slightly raised from the bark with a rough texture

Color - - Greyed-orange (RHS 165D)

Quantity - - 150 lenticels/30 cm of trunk length on 9 cm diameter trunk

**[0012] Branches:**

Angle of attachment - - Average angle of 13 branched pairs = 33.0°

Spacing - - Variable

Size - - Crown diameter of tree, 6.2 m; height = 8.1 m

Surface texture - - Smooth

Bark - - Coppery-orange (RHS 164A to 165B)

**[0013] Branch Lenticels:**

Size - - Average = 3 mm on branches having a 3 cm diameter

Shape - - Torpedo-like

Texture - - Slightly raised from the bark with a rough texture

Color - - Greyed-orange (RHS 165D)

**[0014] Foliage:**

Size of leaf:

Length - - Range 4.0 – 7.6 cm, average 6.1 cm

Width - - Range 2.4 - 7.3 cm, average 4.1 cm

Shape of leaf - - Ovate to ovate-lanceolate

Margin - - Entire

Texture - - Medium

Pubescence distribution - - None (glabrous)

Color - - Upper side, Green (ranges from RHS 137A to 137B)

**Petiole:**

Length - - Ranges from 8 to 30 mm; average = 18 mm

Diameter - - 1 mm

Surface texture - - Smooth

Color - - Olive green (RHS 152C)

Ribs and veins - - Scarcely veined

Thorns and spines - - None

Buds - - Variably ovate

Size - - Length averages 4.2 mm; width averages 3.0 mm

Scales - - 12 scales per bud

Color - - Ranges from RHS Greyed Orange Group 164A to 164B

Leaf scar - - Crescent-shaped

**[0015] Flower (florets)**

Flower type - - Tubular, 4-lobed, borne in large panicles

Length - - 0.4-0.5 cm; average = 0.45 cm

Width - - 0.5-0.7 cm; average = 0.58 cm

**Petal:**

Number - - One, but tubular, flaring horizontally to 4 lobes

Lobe length - - 0.25-0.35 cm; average = 0.29 cm

Lobe width - - 0.15-0.22 cm; average = 0.18 cm

Color - - Creamy-white (RHS White Group 155D)

Shape - - Oblong-conical to pyramidal to nearly globose panicle containing many florets.

Size - - Length: Range of 10.2 cm to 23.4 cm; average = 15.6 cm

Width: Range of 10.2 cm to 23.4 cm; average = 16.7 cm

**Calyx:**

Shape - - Campanulate (bell-like, cylindrical) with 4 tiny lobes at tip observed under binocular dissecting scope, but insignificant to the naked eye

Length - - 0.15 cm

Width - - 0.10 cm

Color - - RHS 155D (White)

Length of flowering (Bloom period) - - 15-20 days, depending on the temperature; flowers last longer under cool temperatures

Lastingness of flowers on the plant - - 5-7 days, but varies with temperature; individual florets open from the bottom of the panicle to the top of the panicle

Fragrance - - Very aromatic and similar to *Ligustrum* (Privet)

#### [0016] Reproductive Parts

Stamen:

Number - - Two

Filament:

Length - - 0.4-0.5 cm; average = 0.45 cm

Width - - 0.05 cm

Color - - RHS 155D (White)

Anther:

Length - - 0.2-0.225 cm; average = 0.22 cm

Width - - 0.125 cm

Color - - RHS 158C (yellow-white) to RHS 160B (greyed-yellow) to RHS 164B (greyed-orange) to RHS 164A (color darkens in this sequence as anthers age from day 1 to day 4 of flower age).

Pistil:

Number - - One

Length - - 0.2-0.25 cm; average = 0.225 cm

Width - - 0.025 cm

Stigma:

Length - - 0.005-0.1 cm; average = 0.085 cm

Width - - 0.035 cm

Color - - RHS 155D (White)

Style:

Length - - 0.14 cm

Width - - 0.025 cm

Color - - RHS 155D (White)

**[0017] Fruit**

Shape - - Oblong-conical to pyramidal to nearly globose, containing many capsules

Texture of capsule - - Slightly rough due to the presence of numerous tiny lenticel-like protuberances dotting the entire surface of the capsule

Size - - Length: Range from 9.0 cm to 22.2 cm; average = 14.4 cm

Width: Range of 9.0 cm to 22.2 cm; average = 15.5 cm

Fruit Structure - - Two-celled oblong capsule

Size: Range of 14 to 20 mm; average = 17 mm long

Color: Ranges from RHS Greyed Orange Group 164B to 165C

**[0018] Seed**

Size - - Length: Range of 13 to 16 mm; average = 14.8 mm

Width: Range of 4 to 7 mm; average = 6.0 mm

**[0019] Insect And Disease Resistance**

No apparent disease or insect problems to date.

**COMPARISON WITH MOST SIMILAR CULTIVAR**

**[0020]** 'Sundak' is different from its parents in having very bright coppery-orange bark that exfoliates dramatically. It is cold hardy to USDA zone 3 to which its parents are not.

**[0021]** Of the commercial lilac trees known to the applicant, the most similar in comparison to 'SunDak' are the cultivars *Syringa pekinensis* 'Morton' – China Snow® and *Syringa pekinensis* 'DTR 124' – Summer Charm® (US Plant Patent 8,951). China Snow® is characterized by upright, rounded form with cherry-like, amber-colored, exfoliating bark. Summer Charm® is reputed to be a small, spreading tree with attractive smooth bark, and dark green, lustrous foliage with no mention of exfoliating bark. Compared to these two cultivars, 'SunDak' has a number of important attributes such as:

- 1) Striking, distinctly coppery-orange exfoliating bark pattern; the bark with its attractive sheen tends to peel and separate in shaggy curls;
- 2) Large, attractive, abundantly-produced, creamy-white flower panicles;
- 3) Attractive seed clusters (capsules) which change from green to tannish-brown and cling to the branches for added winter effect;
- 4) Upright, broadly oval to rounded form;
- 5) Typically grows multiple-trunked; and
- 6) Improved winter hardiness (-34° to -37°C).